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EXAMINER

MURPHY, DILLON J

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,211

Applicant(s)

TAKEMOTO ET AL.

Examiner

Dillon J. Murphy

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Oath/Declaration

Acknowledgement is made of the applicant's correction to the inventor's name. The incorrect spelling of "Kazuhoro" will be corrected to read --Kazuhiro--.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code on page 34, line 12. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Objections

Claims 10 and 18 objected to because of the following informalities: in claim 10, the word "store" should be --stored--, and in claim 18 the phrase "an writing" should be --a writing--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 52 recites the limitation "said individual unit identification information" in page 76, lines 11-12, and again in lines 16-18. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 40-48 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 40-48 are drawn to non-functional descriptive material. MPEP 2106.IV.B.1(a) (Nonfunctional Descriptive Material) states:

"Descriptive material that cannot exhibit any functional interrelationship with the way in which computing processes are performed does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. 101."

"Where certain types of descriptive material, such as music, art, photographs and mere arrangements or compilations of facts or data, are merely stored so as to be read or outputted by a computer without creating any functional interrelationship, either as part of the stored data or as part of the computing process performed by the computer, then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer."

"For example, music is commonly sold to consumers in the form of a compact disc. In such cases, the known compact disc acts as nothing more than a carrier for nonfunctional descriptive material. The purely nonfunctional descriptive material cannot alone provide the practical application for the manufacture."

MPEP 2106.IV.B.1 (Nonstatutory Subject Matter) states:

"When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement".

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Claims 40-48 currently recites a data file configured to include an image data. There is no functional relationship imparted by this data to a computing device. Therefore, the claim is drawn to non-functional descriptive material which is non-statutory per se. The fact that the claims recite a memory medium does not provide the utility (i.e., practical application in the technological arts) required under 35 U.S.C. 101 for the manufacture.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 28, 36, 39, 59, 66, and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiota et al. (US 6,011,547).

Regarding claim 1, Shiota ('547) teaches a data printing system comprising:

An image capturing apparatus, including a memory for storing individual unit identification information of said image capturing apparatus (Shiota ('547), col 2, ln 32-

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45, recording information, i.e. individual unit identification information, is stored in memory of camera, #1 of figure 1);

A print service administration apparatus, connected to a network, for administering image data printing and for receiving image data recorded by said image capturing apparatus (Shiota ('547), col 5, ln 35-40, image data is received by image server (#2 of figure 1), which is connected to a network); and

A print processing apparatus, connected to said network, for executing a printing process in accordance with an instruction from said print service administration apparatus (Shiota ('547), col 5, ln 44-50, set-up processing unit (#11 of fig 1) executes print job according to image files stored in image server);

Wherein said individual unit identification information and said image data are transmitted from said image capturing apparatus to said print service administration apparatus (Shiota ('547), col 2, ln 32-36, individual unit identification and image data are transmitted together to print service administration shown in fig 1 with arrows corresponding to data flow between AE (automatic exposure) processing unit #5 and Image Data #8, and between Recording Information Adding Unit #6 and Recording Information #9); and

Said printing process by said print processing apparatus is administered by establishing a logical linkage between said individual unit identification information and said image data (Shiota ('547), col 5, ln 54-59, print processing is administered based on image data #8, recording information #9, and processing condition #10, all of figure 1, wherein printing is carried out by printer #12).

Regarding claim 28, Shiota ('547) teaches a print service administration apparatus, comprising:

An identification information receiving means for receiving individual unit identification information of an image capturing apparatus owned by a customer (Shiota ('547), col 2, ln 32-45, recording information, i.e. individual unit identification information, is stored in memory of camera, #1 of figure 1. Information stored in memory is transferred to print service administration apparatus in col 5, ln 35-40);

An image data receiving means for receiving image data of said image capturing apparatus (Shiota ('547), col 5, ln 35-40, wherein image data is received by print service administration apparatus from image capturing apparatus); and

An image data storing means for storing said image data in relation to said individual unit identification information (Shiota ('547), fig 1, image data (#8) and individual unit identification, i.e. recording information (#9), are stored together in image server #2).

Regarding claim 36, Shiota ('547) teaches a print processing apparatus, comprising:

An identification information receiving means for receiving individual unit identification information of an image capturing apparatus owned by a customer (Shiota ('547), col 2, ln 32-45, recording information, i.e. individual unit identification information, is stored in memory of camera, #1 of figure 1. Information stored in memory is transferred to print service administration apparatus in col 5, ln 35-40);

An image data receiving means for receiving image data which has a relationship with said individual unit identification information (Shiota ('547), col 2, ln 32-36, individual unit identification and image data are received together by the print service administration shown in fig 1 with arrows corresponding to data flow between AE (automatic exposure) processing unit #5 and Image Data #8, and between Recording Information Adding Unit #6 and Recording Information #9);

A first image forming means for forming an image in a memory medium in accordance with said image data (Shiota ('547), fig 1, image data #8 is saved in image file #7 in image server #2); and

A second image forming means for recording said individual unit identification information in said memory medium or for forming an image in said memory medium in correspondence with said individual unit identification information (Shiota ('547), fig 1, recording information #9, i.e. individual unit identification, is stored in image file with corresponding image data).

Regarding claim 39, which depends from claim 36, Shiota ('547) teaches a print processing apparatus further comprising:

An individual unit identification information detection means for detecting said individual unit identification information in accordance with said individual unit identification information, stored in said memory medium, or said image, formed in said memory medium in correspondence with said individual unit identification information, and a recording medium processing means for processing said recording medium, in which said image is formed, in accordance with said individual unit identification

information detected by said individual unit identification information detection means (Shiota ('547), col 5, 40-53, processing of files is carried out in accordance with the recording information, i.e. individual unit identification, and image data stored together in memory. In order for processing to occur with regards to these two pieces of data, they must inherently be detected and identified before they may be used).

Regarding claim 59, claim 59 recites identical features as claim 28 except claim 59 is a method claim. Thus, arguments similar to that presented above for claim 28 are equally applicable to claim 59.

Regarding claim 66, claim 66 recites identical features as claim 36 except claim 66 is a method claim. Thus, arguments similar to that presented above for claim 36 are equally applicable to claim 66.

Regarding claim 68, which depends from claim 66, claim 68 recites identical features as claim 39 except claim 68 is a method claim. Thus, arguments similar to that presented above for claim 39 are equally applicable to claim 68.

Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Kanai et al. (US 6,889,324).

Regarding claim 11, Kanai teaches an image capturing apparatus (Kanai, figure 1, digital camera #1), comprising:

A memory (Kanai, figure 1, EEPROM #13, IC cards #15) for storing individual unit identification information, being unique to each of said image capturing apparatus (Kanai, col 4, ln 55-67, col 5, ln 1-3, individual unit id is stored in memory); and

A transmission means for transmitting said individual unit identification information in said memory to an external information processing apparatus (Kanai, col 5, ln 3-10, communication port is provided for transmitting information to external apparatus (#17 of fig 1)).

Claims 18-22, 40, 41, and 44-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Pavley (US 6,445,460).

Regarding claim 18, Pavley teaches an image capturing apparatus, to which a memory media is attachable (Pavley, fig 1, digital camera #110, removable memory #354. See also col 2, ln 34-46 for explanation of digital camera components), comprising:

A memory for storing individual unit identification information, being unique to each of said image capturing apparatus (Pavley, col 4, ln 43-46, image tags (#825 of fig 4 and 5) store individual unit identification information, wherein image tags are stored in the image file, and the image file is stored in memory. See also col 5, ln 7-8);

An image data recording means for recording image data captured by said image capturing apparatus and stored in said memory (Pavley, col 3, ln 41-51, raw image data is stored in memory); and

A writing means for writing said individual unit identification information onto said memory media (Pavley, col 3, ln 8-11, removable memory provides additional image data storage data to which individual unit identification information is writable).

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Regarding claim 19, which depends from claim 18, Pavley further teaches an image capturing apparatus wherein said image data is stored in a recording area in said memory media and said individual unit identification information is stored either in a header part or in a job descriptor part of said data file (Pavley, fig 4, image data #810 is stored in a recording area of memory, while individual unit identification is stored in the image tag (#825) portion of said image file (#835) as a job descriptor).

Regarding claim 20, which depends from claim 19, Pavley further teaches an image capturing apparatus wherein at least a part of said individual unit identification information is stored in a vendor unique portion of said job descriptor part (Pavley, in Image File #835 of fig 4, individual unit identification information is stored as a job descriptor part of said data file in the image tag #825 portion of fig 4 and 5. Portion is vendor unique as being a proprietary format of Pavley. See also col 4, ln 56-67 and col 5, ln 1-8).

Regarding claim 21, which depends from claim 18, Pavley further teaches an image capturing apparatus wherein said image data is stored in a recording area in said memory media and said individual unit identification information is stored in a tag portion of said data file (Pavley, in Image File #835 of fig 4, image data is stored in a recording area as element #810, and individual unit identification information is stored in the data file as the image tag #825 portion of fig 4 and 5. See also col 4, ln 56-67 and col 5, ln 1-8).

Regarding claim 22, which depends from claim 18, Pavley further teaches an image capturing apparatus comprising a storage state selection means for switching a

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state of writing of said individual unit identification information by said writing means between writable and non-writable (Pavley, col 3, ln 64-67, col 4, ln 1-6, mode selection between a writable and non-writable state of writing individual unit identification is performed by selecting between capture mode, a play mode, and a review mode. When in capture mode, the individual unit identification is writable along with image data, but when in review mode the selection becomes non-writable, only allowing the user to view images and specific attributes).

Regarding claim 40, Pavley teaches a data file configured to include an image data in relation to the information (Pavley, fig 4, data file including image data) comprising:

Image data captured by an image capture apparatus (Pavley, fig 4, image file #835 includes image data #810 captured by image capture apparatus, #110 of fig 1); and

Individual unit identification information being unique to each of said image capture apparatus, wherein said individual unit identification information corresponds to said image data (Pavley, fig 4, image tags #825 correspond to image data #810. See also col 5, ln 7-8, wherein image tags comprise product tags (see fig 5) which are individual unit identification information).

Regarding claim 41, which depends from claim 40, Pavley further teaches a memory medium wherein said data file is stored (Pavley, col 3, ln 41-51, wherein data is stored in an internal memory, and col 3, ln 8-11, wherein removable memory provides additional storage).

Regarding claim 44, which depends from claim 40, Pavley further teaches a data file wherein said individual unit identification information is stored as a header portion or a tag portion of said image data (Pavley, fig 4 and fig 5, individual unit identification stored as a product tag (#720 of fig 5) is stored in the image tag portion (#825 of fig 4 and 5), together with said image data #810 of fig 4).

Regarding claim 45, which depends from claim 40, Pavley further teaches a data file wherein said individual unit identification information is stored as a file in correspondence with said image data (Pavley, fig 4 and fig 5, individual unit identification stored as a product tag (#720 of fig 5) is stored in the image tag portion as a file (#825 of fig 4 and 5), together with said image data #810 of fig 4).

Regarding claim 46, Pavley teaches a memory medium for storing an image data (Pavley, col 3, ln 41-51, wherein data is stored in an internal memory, and col 3, ln 8-11, wherein removable memory provides additional storage) in relation to the information comprising:

Image data captured by an image capture apparatus (Pavley, fig 4, image file #835 includes image data #810 captured by image capture apparatus, #110 of fig 1);
and

Individual unit identification information being unique to each of said image capture apparatus; wherein said individual unit identification information corresponds to said image data (Pavley, fig 4, image tags #825 correspond to image data #810. See also col 5, ln 7-8, wherein image tags comprise product tags (see fig 5) which are individual unit identification information).

Claim 23, 25, 27, 53, 54, 56, and 57 are rejected under 35 U.S.C. 102(e) as being anticipated by Shiota et al. (US 6,795,206).

Regarding claim 23, Shiota ('206) teaches a print service reception processing apparatus, capable of a communication with an image capturing apparatus (Shiota ('206), fig 1, hard disc and output order receiver, i.e. print service reception processing apparatus, and digital camera shown but not numbered), comprising:

An image data upload means for reading image data stored in said image capturing apparatus (Shiota ('206), col 4, ln 26-34, wherein image data is uploaded and read by image processing laboratory from digital camera);

An identification information reading means for reading individual unit identification information which is stored in said image capturing apparatus (Shiota ('206), col 2, ln 3-12, order information comprises individual unit identification, wherein unit id is and order information is generated in camera, col 4, ln 38-42); and

A transmission means for transmitting said image data and said individual unit identification information through a network (Shiota ('206), col 4, ln 26-34, image data and individual unit id are transferred through a network).

Regarding claim 25, which depends from claim 23, Shiota ('206) teaches a print service reception processing apparatus wherein said print service reception processing apparatus executes a process to relate said image data to said individual unit identification information (Shiota ('206), col 3, ln 20-34, wherein print processing occurs with the relation of image data with corresponding processing item, wherein the

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processing item comprises an individual unit identification information. Image data outputting mean is carried out according to each specific processing item).

Regarding claim 27, Shiota ('206) teaches a print service reception processing apparatus (Shiota ('206), fig 1 shows hard disc and output order receiver, i.e. print service reception processing apparatus), capable of coupling with a memory media in which image data is stored, comprising:

An image data reading means for reading image data stored in said memory media (Shiota ('206), fig 1, image data and order file may be received by a memory media #1);

An identification information reading means for reading individual unit identification information which is stored in said memory media (Shiota ('206), col 2, In 3-12, order information comprises individual unit identification, wherein unit id and order information is generated in camera, col 4, In 38-42); and

A transmission means for transmitting said image data and said individual unit identification information through a network (Shiota ('206), col 4, In 26-34, image data and individual unit id are transferred through a network).

Regarding claim 53, claim 53 recites identical features as claim 23 except claim 53 is a method claim. Thus, arguments similar to that presented above for claim 23 are equally applicable to claim 53.

Regarding claim 54, which depends from claim 53, Shiota ('206) teaches a print service reception processing method wherein said print service reception processing apparatus reads said image data and said individual unit identification information by

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communicating with said image capturing apparatus (Shiota ('206), col 4, ln 26-34, image data and individual unit id are read by being transferred through a network).

Regarding claim 56, which depends from claim 53, Shiota ('206) teaches a print service reception processing method wherein said print service reception processing apparatus is capable of being coupled with a memory medium (Shiota ('206), fig 1, output order receiver, i.e. print service reception processor, is coupled with a memory medium #1, containing image data and order file); and said print service reception processing apparatus reads said image data and said individual unit identification information which are stored in said memory medium (Shiota ('206), image data and order file (containing unit identification information) are read from memory medium to begin print processing. See also fig 1, wherein image data and order file are read from memory and stored in output order receiver).

Regarding claim 57, which depends from claim 53, claim 57 recites identical features as claim 25 except claim 57 is a method claim. Thus, arguments similar to that presented above for claim 25 are equally applicable to claim 57.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 49, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547) and Miyake et al. (US 6,724,502), hereafter referred to as Shiota ('547) and Miyake.

Regarding claim 2, which depends from claim 1, Shiota ('547) teaches a data printing system comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, as explained above in the rejection of claim 1. Shiota ('547) does not disclose expressly a system wherein said print service administration apparatus administers said printing process in accordance with said image data and corresponding order receiving ID. Miyake, however, discloses a data printing system wherein said print service administration apparatus administers said printing process in accordance with said image data and corresponding order receiving ID (Miyake, col 2, ln 28-38, and col 5, ln 50-53, wherein printing information is associated with the image data file, and the order information can be set as the printing information).

Shiota ('547) and Miyake are combinable because they are from a similar field of endeavor of processing of image data from digital cameras. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the system of Miyake comprising the administering of printing according to the image data and corresponding order ID with the system of Shiota ('547) comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual

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unit identification and the image data. The motivation for doing so would have been to provide increased control of the printing process by confirming the print number even if a plurality of prints have been requested (Miyake, col 3, ln 18-19), as well as to provide a system which finds an optimal image processing condition quickly and simply without repetitive adjustments of the condition by test prints so that a high quality print can be promptly provided to a customer when digital image data are to be reproduced (Shiota ('547), col 1, ln 64-67, and col 2, ln 1-6). Therefore, it would have been obvious to combine Miyake with Shiota ('547) to obtain the invention as specified in claim 2.

Regarding claim 49, the combination of Shiota ('547) and Miyake teaches print service method in use with a network to which there are connected an image capturing apparatus for capturing and recording image data, a print service administration apparatus for administering a print process of said image data, and a print processing apparatus for printing an image in response to a command from said print service administration apparatus, (Shiota ('547), fig 1, showing digital camera, image server, and image reproducing apparatus) comprising the steps of:

Transmitting said image data, captured and recorded by said image capturing apparatus, and individual unit identification information, being unique to each of said image capturing apparatus, to said print service administration apparatus in which said image data and said individual unit identification information are related to each other (Shiota ('547), fig 1, arrows from digital camera #1 to image server #2 show transfer of image data and individual unit identification information);

Storing information, which is sent from said image capturing apparatus, into said print service administration apparatus (Shiota ('547), fig 1, information is stored in image server); and

Transmitting said image data, corresponding to said individual unit identification information, from said print service administration apparatus to said print processing apparatus (Shiota ('547), fig 1, arrows from image data #8, recording information #9, and processing condition #10 to set-up processing unit #11 in image reproducing apparatus #3 show transfer of data from print service administration apparatus to print processing apparatus) when said print service administration apparatus receives said individual unit identification information together with a printing order (Miyake, col 2, ln 28-38, and col 5, ln 50-53, wherein printing information is associated with the image data file, and the order information can be set as the printing information).

Regarding claim 50, which depends from claim 49, the combination of Shiota ('547) and Miyake further teaches a print service method wherein a print service reception processing apparatus for uploading said image data to said print service administration apparatus is connected to said network (Shiota ('547), col 5, ln 38-40, image data transfer occurs over network. Figure 1 shows transfer between digital camera #1 and print service administration apparatus #2); and said print service reception processing apparatus transmits said image data, captured and stored by said image capturing apparatus, and said individual unit identification information to said print service administration apparatus (Shiota ('547), fig 1, image file is transferred from image server to image reproducing apparatus) in which said image data and individual

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unit identification information are related to each other (Shiota ('547), fig 1, image data and unit identification information are related in image file #7 in image server #2).

Claims 3 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547) and Tateyama et al. (US 6,425,019), hereafter referred to as Shiota ('547) and Tateyama.

Regarding claim 3, which depends from claim 1, Shiota ('547) teaches a data printing system comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, as explained above in the rejection of claim 1. Shiota ('547) does not disclose expressly a system wherein said print service administration apparatus includes a means for notifying to a user of said printing system a ready state to provide a printed copy of said image data. Tateyama, however, discloses a system wherein said print service administration apparatus includes a means for notifying to a user of said printing system a ready state to provide a printed copy of said image data (Tateyama, col 20, ln 40-53, initiator of print request, i.e. the user of the digital camera, is informed to the capabilities and status of each printer on the network, including whether a printer is ready to print or not).

Shiota ('547) and Tateyama are combinable because they are from a similar field of endeavor of communicating data between multiple devices, and specifically for use in image capturing systems. At the time of the invention, it would have been obvious to a

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person of ordinary skill in the art to combine the printer ready notification means of Tateyama with the system of Shiota ('547) comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data. The motivation for doing so would have been to provide a data communication apparatus which, in a network to which a plurality of target devices are connected, selects a target device corresponding to an output purpose to obtain appropriate output (Tateyama, col 3, ln 25-29), as well as to provide a system which finds an optimal image processing condition quickly and simply without repetitive adjustments of the condition by test prints so that a high quality print can be promptly provided to a customer when digital image data are to be reproduced (Shiota ('547), col 1, ln 64-67, and col 2, ln 1-6). Therefore, it would have been obvious to combine Tateyama with Shiota ('547) to obtain the invention as specified in claim 3.

Regarding claim 51, which depends from claim 49, the combination of Shiota ('547) and Tateyama teaches a print service method comprising the step of:

Notifying to a user of said print service method a ready state to provide a printed copy of said image data (Tateyama, col 20, ln 40-53, initiator of print request, i.e. the user of the digital camera, is informed to the capabilities and status of each printer on the network, including whether a printer is ready to print or not).

Claims 4, 5, 29, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547), Tateyama et al. (US 6,425,019), and Pavley (US 6,445,460), hereafter referred to as Shiota ('547), Tateyama, and Pavley.

Regarding claim 4, which depends from claim 3, the combination of Shiota ('547) and Tateyama teaches a data printing system comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, wherein the print service administration apparatus includes a means to notify a user to the availability of a printer. Tateyama also discloses a data structure wherein said unit identification information includes a provider identification information (Tateyama, col 7, ln 14-20, wherein the minimum format for identification information includes a vendor ID, i.e. provider identification information). The combination of Shiota ('547) and Tateyama does not disclose expressly a data printing system wherein said individual unit identification information includes independent manufacturing information. Pavley, however, discloses a data printing system wherein said individual unit identification information includes independent manufacturing information (Pavley, col 5, ln 7-8, wherein product tags (#720 of fig 5) include information such as camera manufacturer).

Shiota ('547), Tateyama, and Pavley are combinable because they are from a similar field of endeavor of data printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the manufacturer identification information of Pavley with the data printing system of Shiota ('547) and

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Tateyama comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, wherein the print service administration apparatus includes a means to notify a user to the availability of a printer. The motivation for doing so would have been to provide a system to utilize file attributes for automatic image file handling (Pavley, col 1, ln 46-51). Therefore, it would have been obvious to combine Pavley with the combination of Shiota ('547) and Tateyama to obtain the invention as specified in claim 4.

Regarding claim 5, which depends from claim 4, the combination of Shiota ('547), Tateyama, and Pavley teaches a data printing system wherein said provider identification information and said independent manufacturing information are those defined in USB 2.0 standards (Tateyama, col 22, ln 34-37, wherein system may be implemented using the USB standard. The USB 2.0 Standard is inherent to the aforementioned combination).

Regarding claim 29, which depends from claim 28, the combination of Shiota ('547), Tateyama, and Pavley teaches a print service administration apparatus wherein said individual unit identification information includes provider identification information (Tateyama, col 7, ln 14-20, wherein the minimum format for identification information includes a vendor ID, i.e. provider identification information) and independent manufacturing identification information (Pavley, col 5, ln 7-8, wherein product tags (#720 of fig 5) include information such as camera manufacturer).

Regarding claim 37, which depends from claim 36, the combination of Shiota ('547), Tateyama, and Pavley teaches a print processing apparatus wherein said individual unit identification information includes provider identification information (Tateyama, col 7, ln 14-20, wherein the minimum format for identification information includes a vendor ID, i.e. provider identification information) and independent manufacturing identification information (Pavley, col 5, ln 7-8, wherein product tags (#720 of fig 5) include information such as camera manufacturer).

Claims 6, 8, 9, 42, 43, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547) and Pavley (US 6,445,460), hereafter referred to as Shiota ('547) and Pavley.

Regarding claim 6, which depends from claim 1, Shiota ('547) teaches a data printing system comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, as explained above in the rejection of claim 1. Shiota ('547) does not disclose expressly a data printing system wherein said image data is stored in an image data recording area of a data file and said individual unit identification information is stored either in a header part or in a job descriptor part of said data file. Pavley, however, discloses a data printing system wherein said individual unit identification information is stored in a job descriptor part of said data file (Pavley, in Image File #835 of fig 4, individual unit

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identification information is stored as a job descriptor part of said data file in the image tag #825 portion of fig 4 and 5. See also col 4, ln 56-67 and col 5, ln 1-8).

Shiota ('547) and Pavley are combinable because they are in a similar field of endeavor of digital cameras and data printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the system of Pavley wherein the individual unit identification information is stored in a job descriptor part of the data file with the system of Shiota ('547) comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between an individual unit identification and the image data. The motivation for doing so would have been to provide a system to utilize file attributes for automatic image file handling (Pavley, col 1, ln 46-51), as well as to provide a system which finds an optimal image processing condition quickly and simply without repetitive adjustments of the condition by test prints so that a high quality print can be promptly provided to a customer when digital image data are to be reproduced (Shiota ('547), col 1, ln 64-67, and col 2, ln 1-6). Therefore, it would have been obvious to combine Pavley with Shiota ('547) to obtain the invention as specified in claim 6.

Regarding claim 8, which depends from claim 7, the combination of Shiota ('547) and Pavley further teaches a data printing system wherein at least a part of said individual unit identification information is stored in a vendor unique portion of said job descriptor part (Pavley, in Image File #835 of fig 4, individual unit identification information is stored as a job descriptor part of said data file in the image tag #825

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portion of fig 4 and 5. Portion is vendor unique as being a proprietary format of Pavley. See also col 4, ln 56-67 and col 5, ln 1-8).

Regarding claim 9, which depends from claim 1, the combination of Shiota ('547) and Pavley further teaches a data printing system wherein said image data is stored in an image data recording area of a data file and said individual unit identification information is stored in a tag portion of a data file (Pavley, in Image File #835 of fig 4, individual unit identification information is stored in the data file as the image tag #825 portion of fig 4 and 5. See also col 4, ln 56-67 and col 5, ln 1-8).

Regarding claim 42, which depends from claim 41, the combination of Shiota ('547) and Pavley teaches a memory medium wherein said memory medium is an image information memory means in a print service administration apparatus to administer image data of a customer (Shiota ('547), in the combination of Shiota ('547) and Pavley, when data file of the digital camera (Shiota ('547) #1, fig 1) is transferred to the print service administration apparatus (Image server #2 of Shiota ('547) in fig 1), the data file is embodied on a computer readable medium in a print service administration apparatus. Said print service administration apparatus is coupled to an image reproducing apparatus (Shiota ('547) #3 of fig 1), allowing the administration of image data to a customer via prints (#14, fig 1, Shiota ('547))).

Regarding claim 43, which depends from claim 41, the combination of Shiota ('547) and Pavley teaches a memory medium wherein said memory medium is capable of being coupled with said image capturing apparatus (Shiota ('547), fig 1, digital

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camera #1 is coupled together with image server #2 and image reproducing apparatus #3).

Regarding claim 47, which depends from claim 46, the combination of Shiota ('547) and Pavley teaches a memory medium wherein said memory medium is an image information memory means in a print service administration apparatus to administer image data of a customer (Shiota ('547), in the combination of Shiota ('547) and Pavley, when data file of the digital camera (Shiota ('547) #1, fig 1) is transferred to the print service administration apparatus (Image server #2 of Shiota ('547) in fig 1), the data file is embodied on a computer readable medium in a print service administration apparatus. Said print service administration apparatus is coupled to an image reproducing apparatus (Shiota ('547) #3 of fig 1), allowing the administration of image data to a customer via prints (#14, fig 1, Shiota ('547))).

Regarding claim 48, which depends from claim 46, the combination of Shiota ('547) and Pavley teaches a memory medium wherein said memory medium is capable of being coupled with said image capturing apparatus (Shiota ('547), fig 1, digital camera #1 is coupled together with image server #2 and image reproducing apparatus #3).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547), Pavley (US 6,445,460), and Miyake et al. (US 6,724,502) hereafter referred to as Shiota ('547), Pavley, and Miyake.

Regarding claim 7, which depends from claim 6, the combination of Shiota ('547) and Pavley teaches a data printing system comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, wherein the individual unit identification is stored in a job descriptor portion of the data file. The combination of Shiota ('547) and Pavley does not disclose storing image data and individual unit identification in accordance with DPOF standards. Miyake, however, teaches a digital camera which stores data in accordance with DPOF standards (Miyake, col 5, ln 40-45, image data and printing information relating to each frame are stored in accordance with DPOF standards).

Shiota ('547), Pavley, and Miyake are combinable because they are from a similar field of endeavor of image data management. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the DPOF standards of Miyake with the combination of Shiota ('547) and Pavley comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, wherein the individual unit identification is stored in a job descriptor portion of the data file. The motivation for doing so would have been to provide increased control of the printing process by confirming the print number even if a plurality of prints have been requested (Miyake, col 3, ln 18-19). Therefore, it would have been obvious to combine Miyake with the

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aforementioned combination of Shiota ('547) and Pavley to obtain the invention as specified in claim 7.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547), Pavley (US 6,445,460), and Niikawa et al. (US 6,834,130), hereafter referred to as Shiota ('547), Pavley, and Niikawa.

Regarding claim 10, which depends from claim 9, the combination of Shiota ('547) and Pavley teaches a data printing system comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between an individual unit identification and the image data, wherein the image data is stored in an image data recording area of a data file and said individual unit identification information is stored in a tag portion of a data file, as explained above in the rejection of claim 9. The combination of Shiota ('547) and Pavley does not teach a data printing system wherein the image data and said individual unit identification information are stored in said data file in accordance with Exif standards. Niikawa, however, teaches a data printing system wherein the image data and said individual unit identification information are stored in said data file in accordance with Exif standards (Niikawa, col 8, ln 45-67, wherein when an image is captured by a digital camera, the image data is stored together with tag information in accordance with the EXIF standard).

Shiota ('547), Pavley, and Niikawa are combinable because they are from a similar field of endeavor of digital cameras and data printing systems. At the time of the

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invention, it would have been obvious to a person of ordinary skill in the art to combine the EXIF format of Niikawa with the data printing system of Shiota ('547) and Pavley comprising an image capturing apparatus, a print service administration apparatus, a print processing apparatus, and a printer wherein printing is administered through a logical linkage between a individual unit identification and the image data, wherein the image data is stored in an image data recording area of a data file and said individual unit identification information is stored in a tag portion of a data file. The motivation for doing so would have been to provide an image capturing apparatus capable of recording and storing a digital image for later retrieval which allows an image to be found based on a combination of photographic conditions in a photographing operation and history data concerning an operation for an image file, thereby allowing an efficient and accurate image retrieval (Niikawa, col 2, ln 5-10). Therefore, it would have been obvious to combine Niikawa with the aforementioned combination of Shiota ('547) and Pavley to obtain the invention as specified in claim 10.

Claims 12 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 6,889,324) and Takahashi (US 6,867,882), hereafter referred to as Kanai and Takahashi.

Regarding claim 12, which depends from claim 11, Kanai teaches an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, as explained above in the rejection of claim 11. Kanai does not disclose

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expressly an image capturing apparatus further comprising a receiving means or a control means. Takahashi, however, discloses an image capturing apparatus (Takahashi, image input apparatus #101 of fig 1) comprising a receiving means for receiving a request signal of said individual unit identification information from said external information processing apparatus (Takahashi, host information processing apparatus #102 of figure 1), and a control means for controlling said transmission means so as to transmit said individual unit identification information to said external information processing apparatus in response to said request signal (Takahashi, col 14, ln 61-67, request for image data, including individual unit identification, is sent by external apparatus to image capturing apparatus. In response to receiving request signal, image capturing apparatus, under control of the communication command execution unit (#106 of fig 1), transmits data to external apparatus in col 15, ln 1-9).

Kanai and Takahashi are combinable because they are from a similar field of endeavor of the control and operation of image capturing devices and communication with an external apparatus. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the receiving means and control means of Takahashi with the image capturing apparatus of Kanai comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus. The motivation for doing so would have been to provide a universal communication module that need not comply with a specific communication protocol of an image inputting apparatus, as well as to provide a information processing apparatus and print system to easily print a captured or stored

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image at reduced cost (Takahashi, col 1, ln 45-67, and col 2, ln 1-2). Additionally, the motivation would have been to provide a digital camera by which the reliability and credibility of the contents of electronic digital data can be improved (Kanai, col 2, 43-49). Therefore, it would have been obvious to combine Takahashi with Kanai to obtain the invention as specified in claim 12.

Regarding claim 52, the combination of Kanai and Takahashi further teaches a print service method for forming an image in accordance with image data captured by an image capturing apparatus, comprising the steps of:

Reading individual unit identification apparatus, being unique to each of said image capturing apparatus and preloaded to said image capturing apparatus (Kanai, col 11, ln 66-67, col 12, ln 1-2, individual unit identification stored at time of manufacture. See also col 6, ln 48-53 for description of individual unit identification information as a public-key certificate);

Reading said image data, captured by said image capturing apparatus and stored therein (Kanai, col 5, ln 11-20, image data read and stored in digital camera);

Relating said individual unit identification apparatus to said image data (Kanai, col 6, ln 21-24, digital signature of apparatus is added to image data);

Storing said image data related to said individual unit identification apparatus (Kanai, col 6, ln 29-33, image data and individual unit identification stored together in an external memory as a file);

Selecting a piece of image data from said image data stored by said storing step of image data (Takahashi, col 5, ln 8-14, image data may be selected and printed);

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Inputting a printing order of said selected piece of image data, generating order information in relation to said individual unit identification information in accordance with said printing order inputted by said inputting step (Takahashi, col 5, ln 26-30, by selecting image, print order is determined and order information is generated to be printed);

Forming an image in a recording medium in accordance with said image data and said order information, and recording said individual unit identification information or said image, in correspondence with said individual unit identification information, in said recording medium (Takahashi, col 5, ln 31-44, image is printed on a recording medium in accordance with said image data and order information).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 6,889,324) and Ishikawa et al. (US 6,526,516), hereafter referred to as Kanai and Ishikawa.

Regarding claim 13, which depends from claim 11, Kanai teaches an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, as explained above in the rejection of claim 11. Kanai does not disclose expressly an image capturing apparatus comprising a power receiving means for receiving electric power from said external information processing apparatus wherein at least said transmission means is operable by electric power received from said external information processing apparatus. Ishikawa, however, discloses an image capturing

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apparatus comprising a power receiving means for receiving electric power (Ishikawa, figure 1, digital camera #109 comprising power receiving means between power controller #107 and power controller #113 of external apparatus #117) from said external information processing apparatus wherein at least said transmission means is operable by electric power received from said external information processing apparatus (Ishikawa, col 11, ln 55-61, upon connecting camera to external apparatus, power is requested and received by digital camera. Upon connection, information may be transferred between devices).

Kanai and Ishikawa are combinable because they are from a similar field of endeavor of image capturing devices connected to external devices. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the power receiving means and transmission means of Ishikawa with the an image capturing apparatus of Kanai comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus. The motivation for doing so would have been to provide a power control system to which a plurality of devices are connected by connecting means for transferring data and supplying power in order to make it easier to connect devices together and to reduce the space required for the connectors of the devices as well as the cost of making the connections (Ishikawa, col 2, ln 63-67, and col 3, ln 1-9). Furthermore, the motivation for doing so would also have been to provide a digital camera by which the reliability and credibility of the contents of electronic digital data

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can be improved (Kanai, col 2, 43-49). Therefore, it would have been obvious to combine Ishikawa with Kanai to obtain the invention as specified in claim 13.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 6,889,324) and Anderson (US 6,538,698), hereafter referred to as Kanai and Anderson ('698).

Regarding claim 14, which depends from claim 11, Kanai teaches an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, as explained above in the rejection of claim 11. Kanai does not disclose expressly an image capturing apparatus comprising a transmission state selection means for switching a state of transmission of said individual unit identification information between transmissible and not-transmissible. Anderson ('698), however, discloses an image capturing apparatus comprising a transmission state selection means for switching a state of transmission of said individual unit identification information between transmissible and not-transmissible (Anderson ('698), col 4, ln 39-42, wherein selecting between two modes, capture mode and play mode, switches the state of transmission between transmissible and non-transmissible. Upon entering the capture mode, the image capturing apparatus enters the non-transmissible state).

Kanai and Anderson ('698) are combinable because they are in a similar field of endeavor of image capturing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the transmission state

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selection means of Anderson ('698) with the image capturing apparatus of Kanai comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus. The motivation for doing so would have been to allow flexibility in the user operation to reduce the burden of searching and providing a more easily examined image set (Anderson ('698), col 2, In 17-18), as well as to provide a digital camera by which the reliability and credibility of the contents of electronic digital data can be improved (Kanai, col 2, 43-49). Therefore, it would have been obvious to combine Anderson ('698) with Kanai to obtain the invention as specified in claim 14.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 6,889,324) and Friedman (US 5,499,294), hereafter referred to as Kanai and Friedman.

Regarding claim 15, which depends from claim 11, Kanai teaches an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, as explained above in the rejection of claim 11. Kanai does not disclose expressly an image capturing apparatus comprising a display means for displaying said individual unit identification information. Friedman, however, discloses an image capturing apparatus (Friedman, fig 3a, digital camera #11) comprising a display means for displaying said individual unit identification information (Friedman, col 6, In 15-19, individual unit identification information may be displayed on the camera's name plate.

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See also fig 4, wherein the identification information is displayed within the image data of the image capturing apparatus itself).

Kanai and Friedman are combinable because they are in a similar field of endeavor of image capturing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the display means of Friedman with the image capturing apparatus of Kanai comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus. The motivation for doing so would have been to thwart attempts to lie with photographs by associating camera information with the image data (Friedman, col 4, ln 13-15), as well as to provide a digital camera by which the reliability and credibility of the contents of electronic digital data can be improved (Kanai, col 2, 43-49). Therefore, it would have been obvious to combine Friedman with Kanai to obtain the invention as specified in claim 15.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 6,889,324), Tateyama et al. (US 6,425,019), and Pavley (US 6,445,460), hereafter referred to as Kanai, Tateyama, and Pavley.

Regarding claim 16, which depends from claim 11, Kanai teaches an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, as explained above in the rejection of claim 11. Kanai does not disclose expressly an image capturing apparatus wherein said individual unit identification

information includes provider identification information and independent manufacturing information of said image capturing apparatus. Tateyama, however, discloses an image capturing apparatus (Tateyama, fig 19, scanner #13 and digital camera #14) wherein said individual unit identification information includes provider identification information (Tateyama, col 7, ln 14-20, wherein the minimum format for identification information includes a vendor ID, i.e. provider identification information).

Kanai and Tateyama are combinable because they are from a similar field of endeavor of data control of image capturing devices. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the individual unit identification information comprising provider information with the image capturing apparatus of Kanai comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus. The motivation for doing so would have been to provide a data communication apparatus which, in a network to which a plurality of target devices are connected, selects a target device corresponding to an output purpose to obtain appropriate output (Tateyama, col 3, ln 25-29), as well as to provide a digital camera by which the reliability and credibility of the contents of electronic digital data can be improved (Kanai, col 2, 43-49).

The combination of Kanai and Tateyama teaches an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, wherein the individual unit identification includes provider identification information. The

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aforementioned combination does not disclose expressly an image capturing apparatus wherein the individual unit identification also includes independent manufacturing information of said image capturing apparatus. Pavley, however, teaches an image capturing apparatus wherein said individual unit identification includes independent manufacturing information of said image capturing apparatus (Pavley, col 5, ln 7-8, wherein product tags (#720 of fig 5) include information such as camera manufacturer).

Kanai, Tateyama, and Pavley are combinable because they are from a similar field of endeavor of image capturing devices. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the individual unit identification information including the independent manufacturing information of said image capturing apparatus of Pavley with the combination of Kanai and Tateyama comprising an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, wherein the individual unit identification includes provider identification information. The motivation for doing so would have been to provide a system to utilize file attributes for automatic image file handling (Pavley, col 1, ln 46-51). Therefore, it would have been obvious to combine Pavley with the combination of Kanai and Tateyama to obtain the invention as specified in claim 16.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai et al. (US 6,889,324) and Anderson et al. (US 6,636,259), hereafter referred to as Kanai and Anderson ('259).

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Regarding claim 17, which depends from claim 11, Kanai teaches an image capturing apparatus comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus, as explained above in the rejection of claim 11. Kanai does not disclose expressly an image capturing apparatus wherein said memory stores at least a first individual unit identification information and a second individual unit identification information and said image capturing apparatus comprises an identification information selection means for selecting one of said first individual unit identification information and said second individual unit identification information as said individual unit identification information. Anderson ('259), however, teaches an image capturing apparatus (Anderson ('259), fig 3, camera #14) wherein said memory stores a first individual unit identification information and a second individual unit identification information (Anderson ('259), col 6, ln 22-27, wherein multiple individual unit identifications are stored in memory) and said image capturing apparatus comprising an identification information selection means for selecting one of said first individual unit identification information and said second individual unit identification information as said individual unit identification information (Anderson ('259), col 4, ln 35-58, wherein unit identification can be customized and selected by the user).

Kanai and Anderson ('259) are combinable because they are from a similar field of endeavor of image capturing devices. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the multiple individual unit identification information data with selection means of Anderson ('259) with the

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image capturing apparatus of Kanai comprising a memory for storing individual unit identification and a transmission means for transmitting individual unit identification to an external apparatus. The motivation for doing so would have been to provide an identification system to distinguish entity specific cameras by providing a mapping of the camera serial numbers and products IDs to specific entities in the database (Anderson ('259), col 7, ln 13-19), as well as to provide a digital camera by which the reliability and credibility of the contents of electronic digital data can be improved (Kanai, col 2, 43-49). Therefore, it would have been obvious to combine Anderson ('259) with Kanai to obtain the invention as specified in claim 17.

Claims 24 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,795,206) and Takahashi (US 6,867,882), hereafter referred to as Shiota ('206) and Takahashi.

Regarding claim 24, which depends from claim 23, Shiota ('206) teaches a print service reception processing apparatus which communicates with an image capturing apparatus, comprising an image data upload means, an identification information reading means, and a transmission means for transmitting image data and individual unit identification information over a network. Shiota ('206) does not disclose expressly a print service reception processing apparatus wherein said print service reception processing apparatus requests said image capturing apparatus to transmit said individual unit identification information. Takahashi, however, discloses a print service reception processing apparatus wherein said print service reception processing apparatus requests said image capturing apparatus to transmit said individual unit

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identification information (Takahashi, col 14, ln 61-67, request for image data, including individual unit identification, is sent by external apparatus to image capturing apparatus. In response to receiving request signal, image capturing apparatus, under control of the communication command execution unit (#106 of fig 1), transmits data to external apparatus in col 15, ln 1-9).

Shiota ('206) and Takahashi are combinable because they are in a similar field of endeavor of print service reception processing apparatus for processing image data and a corresponding unit id from an image capturing apparatus. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the requesting operation of Takahashi by the print service apparatus with the apparatus of Shiota ('206) comprising a print service reception processing apparatus which communicates with an image capturing apparatus, comprising an image data upload means, an identification information reading means, and a transmission means for transmitting image data and individual unit identification information over a network. The motivation for doing so would have been to provide a universal communication module that need not comply with a specific communication protocol of an image inputting apparatus, as well as to provide a information processing apparatus and print system to easily print a captured or stored image at reduced cost (Takahashi, col 1, ln 45-67, and col 2, ln 1-2). Additionally, the motivation would have been to provide a method an apparatus by which any operator can output picture image data efficiently regardless of his or her experience (Shiota ('206), col 1, ln 53-56). Therefore, it would

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have been obvious to combine Takahashi with Shiota ('206) to obtain the invention as specified in claim 24.

Regarding claim 55, which depends from claim 54, the combination of Shiota ('206) and Takahashi further teaches a print service reception processing method comprising the step of requesting to said image capturing apparatus a transmittance of said individual unit identification information (Takahashi, col 14, ln 61-67, request for image data, including individual unit identification, is sent by external apparatus to image capturing apparatus. In response to receiving request signal, image capturing apparatus, under control of the communication command execution unit (#106 of fig 1), transmits data to external apparatus in col 15, ln 1-9).

Claims 26 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,795,206) and Watanabe et al. (US 6,762,860), hereafter referred to as Shiota ('206) and Watanabe.

Regarding claim 26, which depends from claim 23, Shiota ('206) teaches a print service reception processing apparatus which communicates with an image capturing apparatus, comprising an image data upload means, an identification information reading means, and a transmission means for transmitting image data and individual unit identification information over a network. Shiota ('206) does not disclose expressly a print service reception processing apparatus further comprising a display means for displaying an image in accordance with said image data read by said image data upload means, an image selection input means for inputting a selection of an image from

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images displayed in said display means, an order input means for inputting a print order of said image selected by said image selection input means, and an order information generation means for generating a piece of order information which is related to said individual unit identification information in accordance with said print order, wherein said transmission means transmits said order information to other information processing apparatus. Watanabe, however, teaches a print service reception processing apparatus further comprising:

A display means for displaying an image in accordance with said image data read by said image data upload means (Watanabe, fig 7, image data is displayed to user through browser);

An image selection input means for inputting a selection of an image from images displayed in said display means (Watanabe, col 5, ln 12-21, with images displayed in browser, user is allowed to view and select images from image data);

An order input means for inputting a print order of said image selected by said image selection input means (Watanabe, col 5, ln 12-21, selection of images allows images to be ordered and printed); and

An order information generation means for generating a piece of order information which is related to said individual unit identification information in accordance with said print order (Watanabe, col 5, ln 22-27, order information is generated as an order file, corresponding to image ID, i.e. individual unit identification information);

Wherein said transmission means transmits said order information to other information processing apparatus (Watanabe, col 5, ln 22-27, order file is transferred to application server of central server).

Shiota ('206) and Watanabe are combinable because they are in a similar field of endeavor of print order processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the display means, the image selection means, the order input means, and the order information generation means of Watanabe with the print service reception processing apparatus of Shiota ('206) which communicates with an image capturing apparatus, comprising an image data upload means, an identification information reading means, and a transmission means for transmitting image data and individual unit identification information over a network. The motivation for doing so would have been to allow for greater control and user input in the printing process, as well as to provide a method and apparatus by which any operator can output picture image data efficiently regardless of his or her experience (Shiota ('206), col 1, ln 53-56). Therefore, it would have been obvious to combine Watanabe with Shiota ('206) to obtain the invention as specified in claim 26.

Regarding claim 58, which depends from claim 53, claim 58 recites identical features as claim 26 except claim 58 is a method claim. Thus, arguments similar to that presented above for claim 26 are equally applicable to claim 58.

Claims 30, 31, 33, 34, 60, 61, 63 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547) and Watanabe et al. (US 6,762,860), hereafter referred to as Shiota ('547) and Watanabe.

Regarding claim 30, which depends from claim 28, Shiota ('547) teaches a print service administration apparatus comprising an identification information receiving means, an image data receiving means, and a storing means for storing the image data in relation to the identification information. Shiota ('547) does not disclose expressly a print service administration apparatus further comprising an access ID receiving means for receiving an access ID transmitted from a client terminal which is connected to a network, a comparison means for comparing said access ID with said individual unit identification information and for generating a comparison result, and an access restriction means for restricting an access from said client terminal in accordance with said comparison result. Watanabe, however, discloses a print service administration apparatus comprising:

An access ID receiving means for receiving an access ID transmitted from a client terminal which is connected to a network (Watanabe, fig 1, shows client terminal #6 connected to a network such as the internet #5, allowing the user to access, view, and perform operations on image data stored in a laboratory server #8 or a center server #12); a comparison means for comparing said access ID with said individual unit identification information and for generating a comparison result (Watanabe, col 6, In 10-20, an access ID is transmitted from user PC to laboratory server or center server.

Upon entering access ID, a comparison is generated to allow the user to access the system); and

An access restriction means for restricting an access from said client terminal in accordance with said comparison result (Watanabe, col 2, ln 64-66, if a comparison generates a negative result, the user is restricted from using the system).

Shiota ('547) and Watanabe are combinable because they are from a similar field of endeavor of print order processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the access ID receiving means, the comparison means, and the access restriction means of Watanabe with the print service administration apparatus of Shiota ('547) comprising an identification information receiving means, an image data receiving means, and a storing means for storing the image data in relation to the identification information. The motivation for doing so would have been to allow for greater control and user input in the printing process, as well as to provide a system which finds an optimal image processing condition quickly and simply without repetitive adjustments of the condition by test prints so that a high quality print can be promptly provided to a customer when digital image data are to be reproduced (Shiota ('547), col 1, ln 64-67, and col 2, ln 1-6). Therefore, it would have been obvious to combine Watanabe with Shiota ('547) to obtain the invention as specified in claim 30.

Regarding claim 31, which depends from claim 28, the combination of Shiota ('547) and Watanabe teaches a print service administration apparatus further comprising an image data generation means for generating display image data for

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display in accordance with said image data received by said image data receiving means (Watanabe, fig 7, image data is displayed to user through browser), and a display image transmission means for transmitting said display image data (Watanabe, fig 2, bidirectional arrows between the user's internet browser #21 and the WWW application server in the center server #12 inherently shows a display image transmission means).

Regarding claim 33, which depends from claim 28, the combination of Shiota ('547) and Watanabe teaches a print service administration apparatus comprising a personal information receiving means for receiving personal information (Watanabe, col 6, ln 10-20, an user ID is transmitted from user PC to laboratory server or center server, wherein user ID corresponds to personal information such as name and address of the user, col 5, ln 48-50); and

A personal information memory means for storing said personal information in relation to said individual unit identification information (Watanabe, fig 2, personal information and individual unit identification information are stored in WWW Application Server #15. User ID and personal information correspond to image data and are used for managing image data, col 5, ln 50-62).

Regarding claim 34, which depends from claim 28, the combination of Shiota ('547) and Watanabe teaches a print service administration apparatus comprising a print order information receiving means for receiving print order information of said image data (Watanabe, col 5, ln 12-15, through WWW browser application, print orders can be received); and a print order information memory means for storing said print

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order information in relation to said individual unit identification information (Watanabe, col 5, ln 22-27, when an order is placed by the user, an order file is generated and would inherently be saved for billing purposes).

Regarding claim 60, which depends from claim 59, claim 60 recites identical features as claim 30 except claim 60 is a method claim. Thus, arguments similar to that presented above for claim 30 are equally applicable to claim 60.

Regarding claim 61, which depends from claim 59, claim 61 recites identical features as claim 31 except claim 61 is a method claim. Thus, arguments similar to that presented above for claim 31 are equally applicable to claim 61.

Regarding claim 63, which depends from claim 59, claim 63 recites identical features as claim 33 except claim 63 is a method claim. Thus, arguments similar to that presented above for claim 33 are equally applicable to claim 63.

Regarding claim 64, which depends from claim 59, claim 64 recites identical features as claim 34 except claim 64 is a method claim. Thus, arguments similar to that presented above for claim 34 are equally applicable to claim 64.

Claims 32, 38, 62, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547), Tateyama et al. (US 6,425,019), Pavley (US 6,445,460), and Fredlund et al. (US 6,812,962), hereafter referred to as Shiota ('547), Tateyama, Pavley, and Fredlund.

Regarding claim 32, which depends from claim 29, the combination of Shiota ('547), Tateyama, and Pavley teaches a print service administration apparatus

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comprising an identification information receiving means, an image data receiving means, an a storing means for storing the image data in relation to the identification information, wherein the individual unit identification information includes provider information and manufacturing information. The aforementioned combination does not expressly disclose a print service administration apparatus further comprising an advertisement information memory means for storing advertisement information, a display advertisement information generation means for generating display advertisement information for display in accordance with said provider identification information and said advertisement information, and a display advertisement information transmission means for transmitting said display advertisement information.

Fredlund, however, teaches an apparatus comprising:

An advertisement information memory means for storing advertisement information (Fredlund, col 5, ln 37-41, wherein file structure contains advertisement information, and files are stored in memory, col 4, ln 28-31. Advertisements are also inherently stored in memory to be downloaded later to device, shown later);

A display advertisement information generation means for generating display advertisement information for display in accordance with said provider identification information and said advertisement information; and a display advertisement information transmission means for transmitting said display advertisement information (Fredlund, col 8, ln 43-58, provider information is uploaded from communications device to central server, and images of advertisements, which may be in accordance with provider information, are downloaded and viewed by user on color LCD, col 9, ln 51-64).

Shiota ('547), Tateyama, Pavley, and Fredlund are combinable because they are from a similar field of endeavor of data control of image data and printing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the apparatus of Fredlund comprising an advertisement information memory means, a display advertisement information generation means, and an advertisement transmission means with the apparatus of Shiota ('547), Tateyama, and Pavley comprising an identification information receiving means, an image data receiving means, an a storing means for storing the image data in relation to the identification information, wherein the individual unit identification information includes provider information and manufacturing information. The motivation for doing so would have been to increase revenue by providing customized advertisements to a user while also providing a simple and economic solution of remote photofinishing by providing an apparatus which allows for automatic data forwarding which is simple in construction and easy to use (Fredlund, col 2, ln 16-21). Therefore, it would have been obvious to combine Fredlund with the aforementioned combination of Shiota ('547), Tateyama, and Pavley to obtain the invention as specified in claim 32.

Regarding claim 38, which depends from claim 36, the combination of Shiota ('547), Tateyama, Pavley, and Fredlund teaches a print processing apparatus further comprising:

An advertisement information memory means (Fredlund, col 5, ln 37-41, wherein file structure contains advertisement information, and files are stored in memory, col 4, ln 28-31. Advertisements are also inherently stored in memory to be downloaded later

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to device, shown later) for storing advertisement information which is in relation to provider identification information (Tateyama, col 7, ln 14-20, wherein the minimum format for identification information includes a vendor ID, i.e. provider identification information. See also Fredlund, col 8, ln 43-58, provider information is uploaded from communications device to central server, and images of advertisements, which may be in accordance with provider information, are downloaded and viewed by user on color LCD, col 9, ln 51-64) of said individual unit identification information; and

An advertisement image selection means for selecting advertisement image data in correspondence with said provider identification information (Fredlund, col 5, ln 37-41, the user scrolls through advertisements and selects image data for display. Image data is related to provider information because advertisements are added to apparatus by provider itself);

Wherein said first image forming means forms an image in accordance with said advertisement image data selected by said advertisement image selection means (Fredlund, col 5, ln 37-41, advertising data and image data are stored in a memory medium according to the file structure in fig 6. See also col 4, ln 28-31, wherein the file structure is stored in a memory media).

Regarding claim 62, which depends from claim 59, claim 62 recites identical features as claim 32 except claim 62 is a method claim. Thus, arguments similar to that presented above for claim 32 are equally applicable to claim 62.

Regarding claim 67, which depends from claim 66, claim 67 recites identical features as claim 38 except claim 67 is a method claim. Thus, arguments similar to that presented above for claim 38 are equally applicable to claim 67.

Claims 35 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (US 6,011,547), Watanabe et al. (US 6,762,860), and Niikawa et al. (US 6,834,130), hereafter referred to as Shiota ('547), Watanabe, and Niikawa.

Regarding claim 35, which depends from claim 34, the combination of Shiota ('547) and Watanabe teaches a print service administration apparatus comprising an identification information receiving means, an image data receiving means, a storing means for storing the image data in relation to the identification information, a print order information receiving means, and a print order information memory means. The combination of Shiota ('547) and Watanabe does not expressly disclose a print service administration apparatus further comprising a print order processing state memory means for storing a print order processing state in accordance with said print order information in relation to said individual unit identification information, and a print order processing state transmission means for transmitting said print order processing state in response to a reference request with said individual unit identification information.

Niikawa, however, teaches a print service administration apparatus further comprising:

A print order processing state memory means for storing a print order processing state in accordance with said print order information in relation to said individual unit identification information (Niikawa, col 15, ln 8-11, print order processing, such as

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number of prints and date of printing, is stored in history file in memory, col 16, ln 49-52); and

A print order processing state transmission means for transmitting said print order processing state in response to a reference request with said individual unit identification information (Niikawa, col 14, ln 64-67, col 15, ln 1-2, reference request transmits history file from memory card (#8 of fig 10) to magneto-optical disk (#32 of fig 10)).

Shiota ('547), Watanabe, and Niikawa are combinable because they are from a similar field of endeavor of print order processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the print order processing state memory means and print order state transmission means of Niikawa with the print service administration apparatus of Shiota ('547) and Watanabe comprising an identification information receiving means, an image data receiving means, a storing means for storing the image data in relation to the identification information, a print order information receiving means, and a print order information memory means. The motivation for doing so would have been to provide an image capturing apparatus capable of recording and storing a digital image for later retrieval which allows an image to be found based on a combination of photographic conditions in a photographing operation and history data concerning an operation for an image file, thereby allowing an efficient and accurate image retrieval (Niikawa, col 2, ln 5-10). Therefore, it would have been obvious to combine Niikawa with the combination of Shiota ('547) and Watanabe to obtain the invention as specified in claim 35.

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Regarding claim 65, which depends from claim 64, claim 65 recites identical features as claim 35 except claim 65 is a method claim. Thus, arguments similar to that presented above for claim 35 are equally applicable to claim 65.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dillon J. Murphy whose telephone number is (571) 272-5945. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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